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ABSTRACT

This project examined the extent to which varying instructional grouping arrangements are used for different categories of mildly handicapped students in various instructional settings and the extent to which any differences translated to differences in student responses. Observational data were recorded all day in 10-second intervals for 122 elementary students categorized as learning-disabled, emotionally/behaviorally disturbed, educable mentally retarded, and nonhandicapped, in mainstreamed, resource room, and self-contained programs. While handicapped students, in general, received more instruction in individual arrangements, usually in the special education setting, the only category effect that emerged was that mentally retarded students in self-contained placements spent a greater proportion of special education time in entire group instruction. Differences in instructional grouping arrangements translated to differences in student responding, with active responding and academic engaged times significantly higher during individual instruction, compared to entire group and small group instruction, in both mainstream and special education settings. (Author/JDD)

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University of Minnesota

RESEARCH REPORT NO. 3

INSTRUCTIONAL GROUPING ARRANGEMENTS USED WITH MENTALLY RETARDED, LEARNING DISABLED, EMOTIONALLY DISTURBED AND NONHANDICAPPED ELEMENTARY STUDENTS

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INSTRUCTIONAL ALTERNATIVES PROJECT

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Abstract

Faced with increasing numbers of mildly handicapped students, schools are implementing a variety of instructional arrangements to serve them. We looked at the extent to which different instructional grouping arrangements are used for different categories of mildly handicapped students in different instructional settings, and the extent to which any differences are translated to differences in student responses. Observational data were recorded all day in 10-second intervals for 30 mentally retarded, 30 learning disabled, 32 emotionally/behaviorally disturbed, and 30 nonhandicapped students. While handicapped students, in general, received more instruction in individual arrangements, usually in the special education setting, the only category effect that emerged was that EMR students in self-contained placements spent a greater proportion of special education time in entire group instruction. Differences in instructional grouping arrangements translated to differences in student responding, with active responding and academic engaged times significantly higher during individual instruction, compared to entire group and small group instruction, in both mainstream and special education settings. Implications for classification practices are discussed.

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Instructional Grouping Arrangements Used With Mentally Retarded, Learning Disabled, Emotionally Disturbed and Nonhandicapped Elementary Students

Recent efforts to provide educational assistance to special needs children have involved placing students who usually are identified by some categorical label, in set-aside settings such as resource rooms and self-contained classes. One purpose of removing students from the regular classroom is to enable instruction to be provided to them in small groups or on a one-to-one basis. Such instruction is thought to allow for increased teacher-student interaction and individualization of instruction, both of which are believed to promote academic achievement and success (Bickel & Bickel, 1986; Bloom, 1984; Glass, Cahen, Smith, & Filby, 1982).

While there is considerable debate about the advantages and disadvantages of large group versus small group versus individual instruction, we do not have good data on the kinds of grouping arrangements actually used in educational settings. There are some data that begin to address the issue for learning disabled (LD) students. For example, Thurlow, Graden, Greener, and Ysseldyke (1983) found that over a two-day observation period, LD students received more individual instruction than did non-LD peers. Transposed to a one-day framework, LD students were involved in individual instruction for 34.4 minutes per day while non-LD students received individual instruction for only 3.0 minutes per day. Another comparison revealed that the amount of time devoted to individual instruction increased as the disability service level increased for LD students, except for a sharp fall when the student was in a self-contained special education

classroom (Thurlow, Ysseldyke, Graden, & Algozzine, 1984). These differences seemed to be attributable to the LD students' time in the special education setting (Thurlow, Ysseldyke, Graden, & Algozzine, 1983). However, procedures used in this study to compare regular and resource time were confounded with the content of instruction, making firm conclusions about differences impossible.

Broader questions about amount of time during which students are involved in different instructional grouping arrangements have not been addressed. We do not have information about the extent to which there are differences among the different categories of mildly handicapping conditions, nor between mildly handicapped and nonhandicapped students. Previous research has shown that for nonhandicapped students, academic engagement and achievement is higher during large group instruction (Soar & Soar, 1973; Stallings & Kaskowitz, 1974); however, we do not have data on mildly handicapped students' academic engagement in different instructional grouping arrangements. We also need information about the effects of setting on the type of grouping arrangements used. These questions are relevant both to the current controversy about categorical special education services (see Reynolds, Wang, & Walberg, 1987) and about the procedure of pulling students out of mainstream classrooms for special education services (see Hagerty & Abramson, 1987).

The purpose of this research was to describe and compare instructional grouping arrangements (individual, small group, and entire group) used for different categories of mildly handicapped

children in regular and special educational settings. In addition, the extent to which student responses to instruction differed for the three grouping arrangements was of interest. The following research questions were addressed:

1. To what extent are there differences in the amounts of time spent over the whole day in different grouping arrangements for learning disabled (LD), emotionally/behaviorally disturbed (EBD), educable mentally retarded (EMR), and nonhandicapped (NH) students?

2. To what extent are there differences among categories (LD, EBD, EMR, NH) in the proportion of time spent in each grouping arrangement within mainstream and special education settings?

3. To what extent are there differences among students' academic engaged times and active academic responding times as a function of grouping arrangements?

Method

Subjects

Subjects were 122 students (30 LD, 32 EBD, 30 EMR, 30 NH) from 10 schools in two school districts (one urban and one suburban). Slightly over half of the students were from the suburban district (57%); 43% were from the urban district.

All students were in grades 2 (n = 36), 3 (n = 38), and 4 (n = 47), with the exception of one fifth grade EMR student in a 4/5 split grade classroom in the urban district. The students were assigned to 59 mainstream and 5 self-contained classrooms. Those students who went to resource rooms were distributed among 19 different resource rooms and teachers. Students often moved to different teachers for different subject areas. Thus, much greater diversity of classrooms

and teachers was involved than indicated by the assigned classroom numbers. While most teachers had two students involved in the observational study, one teacher had nine; these were students in the EBD category. This reflected the manner in which EBD students were served in the schools.

Nonhandicapped students were considered "average"; these students received no extra services, such as tutoring, Chapter I, or Enrichment. The handicapped children were identified by each school district. Both districts had criteria for identifying the LD students (either an ability-achievement discrepancy or a two-year below grade achievement score). Specific behavioral descriptors were used to confirm school district identification of EBD and EMR students. EBD students were students who had difficulties in the following areas severe enough to impede academic performance: chronic task incompletion, acting out, behavior difficulties, or social interaction difficulties. EMR students were students who were functionally academically retarded in all four basic skill areas (reading, math, spelling, language arts). Most of these students received their basic skill instruction within special education settings. In both districts, the LD and EBD students were eligible for and usually received education in both mainstream and special settings. The EMR students received special services in self-contained or resource room settings.

The students ranged in age from 91 to 146 months; for LD students the average age was 113 months (range 91-136 months); for EBD students

the average age was 115 months (range = 97-137 months); for EMR students the average age was 119 months (range = 99-146 months); and for nonhandicapped students the average age was 109 months (range = 91-128 months). The majority of the students were Caucasian (72%) or Black (24%). Asian, Native American and "undetermined race or ethnicity" comprised the remaining 4% of the subjects.

All teachers and students were volunteer participants in the study. Students were randomly selected from within the categories with two restrictions: (a) only students with parent permission were included, and (b) no mainstream teacher would have more than two students and no special education teacher more than four students involved in the study. (The second restriction had to be removed for EBD students because participating schools had fewer EBD teachers and because difficulties were encountered in obtaining parent permission for students in some teachers' classes.)

Observation System

The CISSAR observation system (Greenwood, Delquadri, & Hall, 1978) was used in this study to provide information on the quantity of time spent in each of three grouping arrangements (entire group, small group, individual), as well as information on the nature of student responses during the time spent in each arrangement. Information was recorded in 10-second intervals for both grouping arrangement and student response. Data were collected for one student only during each observation period.

Observational data were collected by four individuals hired under criteria that included average or above average reading ability, good

performance on selected parts of a general clerical skills test, flexibility of schedule, appropriate personal skills, and an open attitude to education as assessed in a personal interview. All of those hired had completed some level of post high school education. Observers did not work in schools where their children were enrolled.

Observer agreement checks were conducted for a 15-minute period every 20 students observed. The checks were scheduled at different times during the school day, in different classrooms, and in different content areas, and represented approximately 10% of a typical entire day observation. The average agreement across the 12 checks for the group arrangement coded was 99.4%. This average reflected 11 observation checks where agreement was 100% and one check were agreement was 93% (a rate of 84 out of 90 in agreement). For student response, the average agreement across 12 checks was 95.2%, with a range from 89% to 99%.

In the CISSAR observation system, Entire Group is coded when the student is observed within the same general seating arrangement as all other students in the classroom, and is working on the same activity/task. The actual number of students that might constitute an entire group varied greatly depending on the setting. In a typical mainstream classroom, it might include 28 students, whereas in a typical resource room it might include 3 students. Small Group is coded when the student is seated or positioned next to at least one other student, but away from the other students in the class, and is working on the same activity/task as other students in the small

group. Individual is coded when the student is: (a) working on the activity/task assigned to the entire class, but is working alone with the teacher; (b) away from the other students (physically) or away from a small group and the assigned activity/task is different from that for the other students; or (c) assigned activity/task is different from the entire group, even though his/her desk is among the other students.

Nineteen student responses were coded in the CISSAR observation system. Two composite codes were of interest in this study: (1) active academic responding time (ART) -- that time during which the student is reading aloud or silently, writing, talking about academics, asking or answering questions, or playing an academic game, and (2) academic engaged time (AET) -- that time during which the student is making an active academic response or is attending to academic tasks. The only difference between academic responding and academic engaged time is the inclusion of the attending response in academic engaged time.

Procedure

Observer training. Training of the CISSAR observers consisted of two weeks of formal training sessions conducted by project staff members. The focus was on learning and practicing the definitions and marking codes, followed by an additional 2-3 days of classroom practice. Training was based on the CISSAR Observer and Trainer's Manual (Stanley & Greenwood, 1980). Inter-observer agreement was monitored throughout the training period.

Data collection. Data collection occurred between November and May. CISSAR observations were conducted during the entire academic day, with the exception of breaks (e.g., lunch, recess, bathroom), physical education, music, or special assembly programs. All attempts were made to be unobtrusive, and not to alert students that they were being observed. Observers were not informed of the students' specific classifications and levels of service, although in some cases these became evident during the observation period. The observer did follow the target student when he/she went to another class or to the resource room for instruction. Teachers were aware of the specific student being observed on each observation day and were asked at the end of the observation period about how typical the day was for the student. Teachers were asked to instruct and relate to the student in their usual style. They had been told that the focus of observations was on how different students repond to instruction.

Results

All Day Categorical Effects

The average amounts and the ranges of times spent by each category of students during the entire day in each grouping arrangement are listed in Table 1. It can be seen that the ranges of times spent in each instructional arrangement were large. Still, across all categories, students spent the majority of their school day in entire group arrangements; this grouping arrangement accounted for about 2½ hours of observed instructional time. Small groups were used for an average of one-half hour per day, but were not used at all with

Table 1

Number of Minutes in Each Grouping Arrangement

For LD, EBD, EMR, and Nonhandicapped Students

	LD (n=30)	EBD (n=32)	EMR (n=30)	NH (n=30)
Entire Group				
$\bar{X}$	144.9	158.6	131.5	181.6
SD	43.1	39.7	32.9	33.6
Range	63-270	82-245	71-196	130-265
Small Group				
$\bar{X}$	35.9	29.6	34.7	25.4
SD	29.0	21.5	24.7	21.6
Range	0-111	0-71	0-102	0-81
Individual				
$\bar{X}$	32.8	25.9	39.0	8.4
SD	20.8	19.5	25.4	7.5
Range	4-89	3-91	3-100	0-30

some children in each of the categories. The amount of time that children received instruction in individual instructional arrangements also was extremely variable; some students received no individual instruction during the day, while others received more than one and one-half hours in individual grouping arrangements.

A significant difference was found among categories in the amount of time spent in entire group arrangements, F (3,118) = 9.68, $p < .001$, and in individual arrangements, F (3,118) = 13.8, $p < .01$, but not in the amount of time spent in small group arrangements. Follow-up tests on the entire group arrangement using the Student-Newman-Keuls procedure indicated that the difference between nonhandicapped students and the three categories of handicapped students was significant, with the nonhandicapped students spending significantly more time in entire groups. In addition, there was a significant difference between the EBD and EMR groups in time spent in entire group arrangements, with the EBD students being grouped significantly more of the time in this arrangement than the EMR group. Follow-up tests also indicated that nonhandicapped students had significantly less time in individual arrangements (averaging 8 minutes) than the students in the three categories of handicapping conditions (averaging 30 minutes). Again, significant differences existed between the EBD and EMR groups, with the EBD group receiving less time in individual arrangements than the EMR group.

Setting Effects for Handicapped Students

To compare instructional grouping arrangements as a function of category and setting, it is necessary to include only those subjects who received service in both mainstream and special education settings (n = 64). It is also necessary to transform minutes to proportional times. This is because the actual number of minutes spent in any grouping arrangement is constrained by the amount of time spent in a particular setting. For example, LD students spent twice as much time, on the average, in resource rooms as EBD and EMR students; thus, differences in time in a particular grouping arrangement would reflect time-in-setting differences.

The mean percentages of student time spent in each instructional grouping arrangement, broken down by setting and handicapping condition, are listed in Table 2. For this analysis, the EMR group was separated into those served in resource rooms (EMR-R) and those served in self-contained classes (EMR-S) since preliminary analyses indicated significant differences between these two groups.

A one-between, one-within repeated measures analysis of variance was used to examine differences for students who received services in both mainstream and special education settings. The between groups factor was handicapping condition (LD, EBD, EMR-resource, and EMR-self contained students). The within groups factor was setting (mainstream vs. special education). Dependent measures were the proportions of observation time in the setting that were spent in entire group or small group or individual arrangements.

Table 2

Percentage of Time Spent in Three Grouping Arrangements by LD, EBD, and EMR Students in Mainstream and Special Education Settings

	Mainstream			Special Education[a]		
	Entire Group	Small Group	Ind[b]	Entire Group	Small Group	Ind[b]
LD (n=28)						
$\bar{X}$	84.6	8.3	7.1	9.3	36.3	54.2
SD	11.3	9.4	6.3	20.4	36.6	35.4
EBD (n=21)						
$\bar{X}$	82.4	10.0	7.9	5.8	40.3	53.8
SD	7.9	7.1	5.4	21.7	34.3	35.7
EMR-R (n=10)[c]						
$\bar{X}$	90.4	3.2	6.3	16.5	34.1	49.3
SD	6.4	5.0	4.2	29.9	35.6	30.8
EMR-S (n=5)[c]						
$\bar{X}$	82.2	12.8	5.0	49.2	12.1	38.6
SD	17.1	16.1	4.7	30.4	12.9	35.8

[a]Includes time in either a resource room or a self-contained classroom

[b]Ind = Individual instruction

[b]Data from EMR students were analyzed separately for those in resource room settings (EMR-R) and those in self-contained settings (EMR-S)

For the entire group arrangement, there was a significant category by setting interaction, F (3,60) = 4.61, $p < .01$, as well as effects for category overall, F (3,60) = 4.30, $p < .01$, and for setting overall, F (3,60) = 287.39, $p < .001$. Follow-up tests using the Student-Newman-Keuls procedure indicated that there were no significant differences between categories in mainstream settings for the proportion of time spent in entire group arrangements, but that there were significant differences in the special education settings. EMR students in self-contained classes spent a significantly greater proportion of time in entire groups than did all other handicapped groups. This interaction effect is illustrated in Figure 1.

For small group and individual instructional arrangements, significant differences were found only for setting [small group: F (3,60) = 16.68, $p < .001$; individual: F (3,60) = 63.20, $p < .001$]. Significant differences were not found for category or the interaction of setting and category. Looking at the setting effects for all three grouping arrangements, it is evident that all categories spent a greater percentage of time in individual arrangements and a smaller percentage of time in entire groups in the special education setting than in the mainstream setting.

Category Comparisons in the Mainstream Setting

Because the repeated measures analysis used only those students served in both settings, thereby eliminating the nonhandicapped students and some EBD and EMR students from the sample examined, a one-way analysis of variance also was conducted to examine category

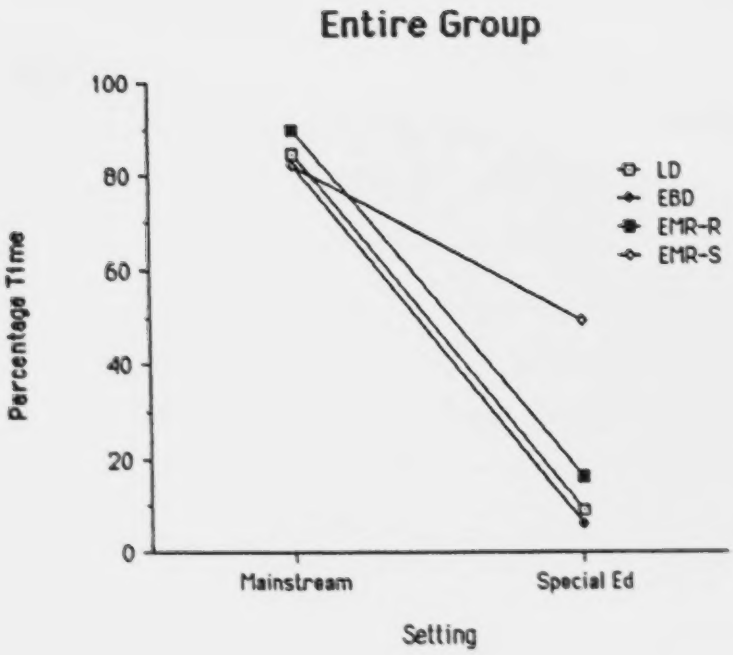

Figure 1. Time Spent in Entire Group Instruction by LD, EBD, and EMR Students

differences in instructional arrangements in the mainstream setting. The dependent measure was the percentage of time spent in each instructional structure out of the time spent in that setting by each category group.

The mean percentage of time, the standard deviation, and the range of percentage times for each instructional arrangement in mainstream settings are presented in Table 3. All categories of students notably spent over 80% of time in mainstream classes in entire group instruction. A very small percentage of time is spent in small groups and individual structures, although somewhat more time is spent in small instructional groups compared to individual instruction for all student categories except for EMR students. Considerable variability in times, however, is evident. Analysis indicated that there were no significant differences among categories in percentages of time in regular education spent in entire group, small group, and individual instruction.

Student Responding as a Function of Grouping Arrangement

Friedman Two-Way Analyses of Variance and follow-up Wilcoxon Matched Pairs Signed Ranks tests were used to examine the relationship between handicapped students' responses to instruction and the grouping arrangement within which instruction was received.

Summaries of active academic responding time (ART) and academic engaged time (AET), expressed in proportions of time within each grouping arrangement in each setting, are presented in Table 4. The Friedman analysis produced significant results for both ART and AET in

Table 3

Percentage of Time Spent by LD, EBD, EMR, and NH Students in the Mainstream Setting

	Entire Group	Small Group	Ind[a]
LD (n=30)			
$\bar{X}$	84.3	9.0	6.7
SD	1.1	10.0	6.3
Range	54.3-100	0-42.4	0-29.4
EBD (n=32)			
$\bar{X}$	83.3	9.2	7.7
SD	8.3	7.1	7.0
Range	60.4-95.7	0-27.0	1.0-35.8
EMR (n=16)			
$\bar{X}$	87.4	6.0	6.6
SD	11.0	10.3	5.2
Range	61.2-100	0-33.1	0-18.1
Reg (n=30)			
$\bar{X}$	84.6	11.4	3.9
SD	10.2	9.1	3.7
Range	62.9-99.5	0-30.3	0-15.8

[a]Ind = Individual instruction

Table 4

ART and AET in Mainstream and Special Education Settings:
Percentage of Time During Three Grouping Arrangements

	Mainstream			Special Education		
	Entire Group	Small Group	Ind	Entire Group	Small Group	Ind
Academic Engaged Time (AET)						
$\bar{X}$	52.7	67.2	74.3	65.5	68.1	82.8
SD	14.5	24.0	21.7	23.3	20.9	12.7
N	78	63	75	41	61	77
Active Responding Time (ART)						
$\bar{X}$	22.8	33.2	40.6	34.8	35.1	56.0
SD	10.7	19.7	19.3	22.5	16.4	16.1
N	78	63	75	41	61	77

the mainstream setting [ART: $\chi^2(2) = 30.15$, $p < .001$; AET: $\chi^2(2) = 43.35$, $p < .001$] and in the special education setting [ART: $\chi^2(2) = 30.97$, $p < .001$; AET: $\chi^2(2) = 16.19$, $p < .001$]. Follow-up Wilcoxon tests indicated that in the mainstream setting, handicapped students made more active academic responses and were more engaged when in individual grouping arrangements than when in small group arrangements [ART: $z = 2.82$, $p < .01$; AET: $z = 2.25$, $p < .01$]; they also made more active academic responses and were more engaged when in small groups than when in entire group arrangements [ART: $z = 3.88$, $p < .001$; AET: $z = 4.37$, $p < .001$]. Correspondingly, academic engagement and responding was greater in individual arrangements than in entire group arrangements [ART: $z = 5.85$, $p < .001$; AET: $z = 5.90$, $p < .001$].

Wilcoxon tests for the special education setting indicated that students made more active academic responses and were more engaged when in individual grouping arrangements than when in either small group arrangements [ART: $z = 5.99$, $p < .001$; AET: $z = 4.57$, $p < .001$] or entire group arrangements [ART: $z = 4.27$, $p < .001$; AET: $z = 3.83$, $p < .001$]. No differences were found in either ART or AET for the comparison of entire group arrangements and small group arrangements.

Comparisons of students' responding times within each setting indicated significant differences between mainstream and special education settings for entire group and individual grouping arrangements. Significant differences between mainstream and special

education emerged for "Entire Group" arrangements [ART: $z = 3.65$, $p < .001$; AET: $z = 3.32$, $p < .001$]. Thus, students made more active academic responses and were more engaged in entire group arrangements in the special education setting than in the mainstream setting. The same was true for individual arrangements [ART: $z = 3.95$, $p < .001$; AET: $z = 3.10$, $p < .001$], but not for small group arrangements [ART: $z = 0.43$, $p = .665$; AET: $z = 0.50$, $p = .615$].

Discussion

One of the more significant findings of the present study is related to the argument about the extent to which there are differences among categories in kinds of instruction received. Reynolds, Wang, and Walberg (1987) recently argued that "the categories used in special education for mildly handicapped students are not reliable nor valid as indicators of particular forms of education" (p. 391). They cited Heller, Holtzman, and Messick (1982), who reported that "similar instructional processes appear to be effective with EMR, learning disabled, and compensatory educational populations" (p. 102). In the present study, only one categorical effect emerged in the instructional grouping arrangements used with mildly handicapped students, and that effect was more a function of the way in which service was provided (self-contained classroom vs resource room), rather than a function of the categorical designation (EMR).

For handicapped students overall, the instructional setting does have a significant effect on the grouping arrangements within which

instruction is received. A much greater percentage of special education time than of mainstream time is spent in small group and individual grouping arrangements. The opposite is found for entire group arrangements. The one exception is that EMR students in self-contained special education classes spend a greater percentage of that special education time in entire groups compared to other handicapped students. Such findings raise issues about the appropriateness of the self-contained approach for handicapped students, at least in terms of time devoted to individual grouping approaches.

Clear differences also appeared in the instructional grouping arrangements used with handicapped and nonhandicapped students. During a typical school day, handicapped students are involved in individual instructional grouping arrangements for about one-half hour, while nonhandicapped students are involved in such arrangements for only about 8 minutes. The range for the handicapped students went up to 100 minutes, while the greatest time for nonhandicapped students was 30 minutes. The amounts of individual instruction for nonhandicapped students were considerably higher than those found in previous research using the same observation system (see Graden, Thurlow, & Ysseldyke, 1983; Thurlow, Graden, et al., 1983). In those studies, nonhandicapped students spent an average of 2 to 3 minutes in individual instructional arrangements. The 30 minutes average found for the handicapped students in the current study is comparable to amounts found previously for LD students (Thurlow, Graden, et al., 1983). These differences possibly reflect emphasis given to

principles of effective instruction within the school districts during the past five years.

Our results indicate that during a typical school day, most time is spent in entire group instructional arrangements, regardless of student handicap or category of handicap. Related to differences found in amounts of individual grouping arrangements are significant differences between handicapped and nonhandicapped students in the amount of time spent in entire group instructional arrangements. Nonhandicapped students spent about 3 hours in entire groups during a typical school day while handicapped students spent about 2½ hours.

In the present study, analyses indicated that students' responses to instruction do differ as a function of the instructional grouping arrangement, and that the effects sometimes vary as a function of setting. Individual grouping arrangements produce the greatest proportions of academic responses in both mainstream and special education settings, a finding consistent with previous findings in regular education settings for regular education students (Sindelar, Rosenberg, Wilson, & Bursuck, 1984). However, in this study, we found that the proportion of academic responding was even greater in the special education setting than in the mainstream. Entire group arrangements produce the smallest proportions of academic responses in both settings, but more so in the mainstream setting. Reasons for these differences should be the subject of further study. Alternate explanations include those related to (a) differences in the students (with those in the special education setting at any one time showing

less academic heterogeneity), and (b) differences in the opportunity for teachers to use certain techniques (such as greater student-teacher discussions or matching tasks to student needs), which may in turn be related to the student-teacher ratio. Support for both types of explanations exist (see Hawley & Rosenholtz, 1984), as do arguments against each (see Haynes & Jenkins, 1986). In either case, it becomes relevant to note the apparent relationship between academic responding time and achievement (cf. Greenwood, Delquadri, & Hall, 1984) , and to begin to consider ways to intervene in mainstream classes to promote greater academic responding time for handicapped students in those settings.

The finding that students' academic responding and engaged times are higher in special education settings does not necessarily mean that we need to increase special education students' time in pullout programs. The distinct advantages of mainstreaming would be lost, and such an approach is considered simplistic for meeting students' needs (Meisel, 1986). A preferable implication of the findings is that resources should be provided to mainstream teachers to increase all students' opportunities to respond and learn.

Similarly, the finding that students' active academic responding and academic engaged times were higher when they were involved in individual grouping arrangements does not mean that all instruction should be individual. There must be a balance of individual grouping arrangements with other programming needs that a student may have. Mainstreaming and the instructional arrangements generally associated

with the mainstream classroom (i.e., small groups, entire groups) provide other important elements for the student. A reasonable balance is the key.

On the basis of the results of this and other studies we have conducted recently, major questions are raised about the efficacy of the practice of differential categorization of mildly handicapped students. If there are no differences in the amounts of time allocated to instruction (Ysseldyke, Thurlow, Christenson, & Weiss, in press), the kinds of instructional tasks used (Ysseldyke, Christenson, Thurlow, & Bakewell, 1987), the instructional grouping arrangements used (this study) and in student responses (Ysseldyke, Thurlow, Christenson, & Skiba, 1987), we think categorical practices make little sense for mildly handicapped students.

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